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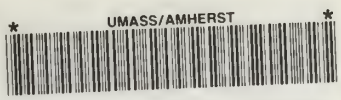

MASSACHUSETTS

COMMISSION FOR THE BLIND

1990

REPORT OF THE REGISTER

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COMMISSIONER

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Introduction

The Massachusetts Commission for the Blind Report of the Register covers the period January 1 - December 31, 1990. This report presents statistics for the total and newly registered blind population on the following characteristics.

- Total Population
- Regional distributions
- Age distributions
- Site and type of affections
- Etiologies
- Visual acuities
- Race/ethnic distributions
- Removals

Total Population

The 1990 Register of the Commission for the Blind represents a total of 30,405 legally blind persons. Although this total reflects an overall increase of 5.8 percent, it should be noted that this increase is related to the low rate of removals completed during 1989 and 1990. The regional distribution of the total register remains basically the same as in previous years. Region IV represents the largest, 23.1 percent, and Region II the smallest, 11.6 percent, of the total blind population.

Regional Distribution of 1990 Registrations

The 2,675 new registrations represents a 5.5 percent decrease when compared to new registrations in 1989. Registrations declined in five of the six regions with the rate of decrease the highest, 14.0 percent in Region III and the lowest, 3.6 percent in Region IV. Region V, up 6.4 percent, was the only region to increase in the number of new registrations in 1990.

Age Distributions

The aging factor continues to be a notable characteristic of both the total and new registrations with persons ages 65 and over representing 67.9 percent and 75.4 percent of the total and new registrations respectively. In comparison to the total blind population, the aging trend is even greater among the new registrants as evidenced by the fact that 60.7 percent of this group were ages 75 and over at the time of initial registration.

The regional age distribution of the 1990 registrations varies only slightly in five of the six regions where age groups 65 and over represent between 75 and 80 percent of each regions new registrants, while those in age groups 14 - 64 represent from 14 to 18 percent and children ages 0 - 13 represent from 3 to 6 percent. The only significant variation appears in Region VI where new registrants in the older age groups ages 65 and over represent only 65 percent, while the middle age groups 14 - 64 represent 24 percent and children ages 0 - 13 represent 7 percent.

Site and Type of Affections

The continuing increase in the elderly population is again reflected in the diagnoses reported among both the total and newly registered. Diagnoses related to the aging process, macular degeneration, cataract and cataracts in any combination represent 45.2 percent and 56.6 percent of the total and new registrations respectively.

Diabetic retinopathy continues to a primary diagnosis among both the total and new registrants, representing 8.8 percent and 9.8 percent respectively. Diabetic retinopathy also continues to be the most frequently reported diagnosis among new registrants ages 23 - 64, accounting for 26.2 percent of the diagnoses reported for this age group.

Multiple congenital ocular malformations together with optic nerve atrophy, affections of the optic nerve and optic pathway or visual center represent 57 percent of the diagnoses reported among new registrants in the youngest age group 0 - 22.

Etiologies of 1990 Registrations

Causes of blindness attributed to senile degeneration represented 62 percent of the etiologies reported in 1990. Diabetes mellitus, multiple sclerosis, cerebrovascular conditions, nutritional dificiency and other such diseases and disorders represent 15 percent, while diagnoses such as glaucoma, detached retina, etc. for which the exact etiology is unknown to science or not reported by the referring medical source represent 14 percent. Etiologies of hereditary or congenital origin such as retinitis pigmentosa, multiple congenital ocular malformations, etc. represent 5.8 percent. Injuries/poisonings, infectious diseases and neoplasms represent 3 percent of all causes of blindnesss reported in 1990.

Visual Acuity of 1990 Registrations

The acuity classifications remain essentially the same as in previous years, with 68 percent of the newly registered having a reported acuity ranging between 10/200 - 20/200. Five percent were reported as light perception or less at the time they were initially registered. Approximately 7 percent were legally blind due to a visual field loss of ten degrees or less regardless of their acuity.

Race/Ethnic Distribution of 1990 Registrations

Data collected on the race/ethnic distribution of the 1990 registrants was obtained at the time of initial registration and is based on the information reported by the referring medical source. Only 53.6 percent of the reports used for registration purposes included information pertaining to race. Based only on the reports including race, 90.5 percent were white, while 9.5 percent were non-white.

THE REGIONAL DISTRIBUTION OF THE NON-WHITE POPULATION RANGES FROM 3.5 PERCENT IN REGION IV TO 32.4 PERCENT IN REGION VI.

REGISTER REMOVALS

A STATEWIDE CENSUS OF THE BLIND POPULATION HAS NOT BEEN COMPLETED IN SEVERAL YEARS RESULTING IN A DECREASE IN THE NUMBER OF REGISTER REMOVALS COMPLETED DURING THE PAST TWO YEARS. DUE TO THIS LOW RATE OF REMOVAL, THE TOTAL REGISTER FIGURE OF 30,405 IS INFLATED BY APPROXIMATELY 6 PERCENT.

DEATH IS THE PRIMARY CAUSE FOR REMOVAL WITH THE MAJORITY AGES 75 AND OVER AT THE TIME OF REMOVAL.

REGIONAL DISTRIBUTION
TOTAL REGISTER

REGION I	3,966	13.0%
REGION II	3,527	11.6%
REGION III	6,194	20.4%
REGION IV	7,035	23.1%
REGION V	5,621	18.5%
REGION VI	4,062	13.4%
TOTAL	30,405	100.0%

REGION I

ADAMS	47	HANCOCK	-	PITTSFIELD	307
AGAWAM	121	HATFIELD	9	PLAINFIELD	-
ALFORD	-	HAWLEY	-	RICHMOND	2
AMHERST	87	HEATH	-	ROWE	-
ASHFIELD	3	HINSDALE	13	ROYALSTON	5
ATHOL	78	HOLYOKE	309	RUSSELL	3
BECKET	2	HUNTINGTON	6	SANDISFIELD	3
BELCHERTOWN	26	LANESBORO	15	SAVOY	1
(STATE SCHOOL)	55	LEE	19	SHEFFIELD	9
BERNARDSTON	6	LENOX	44	SHELBURNE	19
BLANDFORD	2	LEVERETT	3	SHUTESBURY	1
BUCKLAND	1	LEYDON	1	SOUTHAMPTON	10
CHARLEMONT	4	LONGMEADOW	66	SOUTH HADLEY	68
CHESHIRE	12	LUDLOW	58	SOUTHWICK	13
CHESTER	5	MIDDLEFIELD	1	SPRINGFIELD	868
CHESTERFIELD	-	MONROE	-	STOCKBRIDGE	12
CHICOPEE	236	MONSON	19	SUNDERLAND	6
CLARKSBURG	6	MONTAGUE	51	TOLLAND	2
COLRAIN	5	MONTEREY	5	TYRINGHAM	-
CONWAY	9	MONTGOMERY	3	WARE	47
CUMMINGTON	2	MOUNT WASHINGTON	-	WARWICK	8
DALTON	39	NEW ASHFORD	-	WASHINGTON	3
DEERFIELD	18	NEW MARLBOROUGH	2	WENDELL	-
EASTHAMPTON	66	NEW SALEM	-	WESTFIELD	141
EAST LONGMEADOW	47	NORTH ADAMS	92	WESTHAMPTON	3
EGREMONT	1	NORTHAMPTON	171	WEST SPRINGFIELD	122
ERVING	1	(STATE HOSPITAL)	3	WEST STOCKBRIDGE	6
FLORIDA	-	NORTHFIELD	14	WHATELY	1
GILL	5	ORANGE	53	WILBRAHAM	39
GOSHEN	1	OTIS	1	WILLIAMSBURG	9
GRANBY	22	PALMER	58	WILLIAMSTOWN	53
GRANVILLE	5	(STATE SCHOOL)	46	WINDSOR	1
GREAT BARRINGTON	64	PELHAM	-	WORTHINGTON	3
GREENFIELD	126	PERU	-		
HADLEY	17	PETERSHAM	3		
HAMPDEN	14	PHILLIPSTON	3	TOTAL	3,966

REGION II

Ashburnham	14	Harvard	7	Shirley	20
Ashby	6	Holden	49	Shrewsbury	97
Auburn	57	Holland	1	Southbridge	88
Ayer	57	Hopedale	28	Spencer	55
Barre	22	Hubbardston	1	Sterling	28
Bellingham	27	Lancaster	28	Sturbridge	18
Berlin	8	Leicester	33	Sutton	18
Blackstone	21	Leominster	164	Templeton	27
Bolton	6	Lunenberg	15	Townsend	16
Boylston	21	Medway	29	Upton	14
Brimfield	7	Mendon	11	Uxbridge	53
Brookfield	16	Milford	113	Wales	4
Charlton	34	Millbury	61	Warren	18
Clinton	68	Millville	5	Webster	87
Douglas	17	New Braintree	-	West Boylston	26
Dudley	29	Northbridge	73	West Brookfield	26
East Brookfield	3	North Brookfield	14	Westminster	21
Fitchburg	249	Oakham	2	Winchendon	46
Franklin	68	Oxford	52	Worcester	1,122
Gardner	128	Paxton	8	(State Hospital)	14
Grafton	61	Pepperell	19		
Groton	61	Princeton	5		
Hardwick	14	Rutland	17	TOTAL	3,527

REGION III

Amesbury	80	Ipswich	58	Revere	291
Andover	115	Lawrence	348	Rockport	46
Beverly	206	Lowell	483	Rowley	18
Billerica	122	Lynn	502	Salem	252
Boxford	10	Lynnfield	29	Salisbury	36
Chelmsford	118	Malden	343	Saugus	117
Chelsea	162	Manchester	22	Stoneham	92
(Soldier's Home)	13	Marblehead	87	Swampscott	75
Danvers	124	Medford	297	Tewksbury	122
(State Hospital)	14	Melrose	179	Topsfield	16
(Hogan Center)	17	Merrimac	13	Tyngsboro	15
Dracut	58	Methuen	163	Wakefield	99
Dunstable	2	Middleton	17	Wenham	12
Essex	13	Nahant	19	Westford	41
Everett	206	Newbury	9	West Newbury	9
Georgetown	23	Newburyport	79	Winthrop	150
Gloucester	127	North Andover	73		
Groveland	16	North Reading	45		
Hamilton	29	Peabody	223		
Haverhill	263	Reading	96	TOTAL	6,194

REGION IV

Acton	38	Lexington	173	Southboro	13
Arlington	274	Lincoln	16	Stow	14
Ashland	30	Littleton	29	Sudbury	34
Bedford	88	Marlboro	132	Walpole	50
Belmont	167	Maynard	42	Waltham	331
(Fernald)	153	Medfield	26	Watertown	288
Boxboro	5	(State Hospital)	4	(Perkins)	13
Braintree	225	Millis	16	Wayland	42
Burlington	57	Milton	149	Wellesley	104
Cambridge	561	Natick	138	Westboro	67
Canton	82	Needham	152	(State Hospital)	9
Carlisle	5	Newton	445	Weston	35
Cohasset	37	Norfolk	16	Westwood	46
Concord	100	Northboro	28	Weymouth	275
Dedham	119	Norwell	30	Wilmington	66
Dover	4	Norwood	174	Winchester	93
Foxboro	55	Plainville	29	Woburn	140
Framingham	321	Quincy	524	Wrentham	49
Hingham	86	Randolph	162	(State School)	69
Holliston	25	Scituate	79		
Hopkinton	10	Sharon	61		
Hudson	41	Sherborn	6		
Hull	42	Somerville	341	TOTAL	7,035

REGION V

Abington	63	Freetown	23	Plympton	7
Acushnet	29	Gay Head	2	Provincetown	24
Attleboro	179	Gosnold	-	Raynham	18
Avon	19	Halifax	30	Rehoboth	16
Barnstable	253	Hanover	33	Rochester	13
Berkley	6	Hanson	35	Rockland	71
Bourne	75	Harwich	59	Sandwich	59
Brewster	42	Holbrook	49	Seekonk	31
Bridgewater	47	Kingston	49	Somerset	97
Brockton	545	Lakeville	23	Stoughton	118
Carver	28	Mansfield	29	Swansea	74
Chatham	54	Marion	19	Taunton	169
Chilmark	3	Marshfield	65	(State Hosp.)	6
Dartmouth	120	Mashpee	28	(P.A. Dever)	62
Dennis	87	Mattapoisett	34	Tisbury	20
Dighton	26	Middleboro	76	Truro	6
Duxbury	44	Nantucket	15	Wareham	92
East Bridgewater	49	New Bedford	682	Wellfleet	11
Eastham	24	North Attleboro	94	West Bridgewater	26
Easton	48	Norton	35	Westport	44
Edgartown	6	Oak Bluffs	17	West Tisbury	1
Fairhaven	97	Orleans	46	Whitman	43
Fall River	715	Pembroke	46	Yarmouth	144
Falmouth	163	Plymouth	258		
				TOTAL	5,621

REGION VI

Allston	101	East Boston	192	Roxbury	284
Boston	671	Hyde Park	184	South Boston	206
Brighton	286	Jamaica Plain	287	West Roxbury	202
Brookline	389	Mattapan	129		
		(State Hospital)	11		
Charlestown	70	(Chronic ")	8		
Dorchester	751	Roslindale	291	TOTAL	4,062

REGIONAL DISTRIBUTION - 1990 REGISTRATIONS

REGION I	381	14.2%
REGION II	300	11.2%
REGION III	518	19.4%
REGION IV	590	22.1%
REGION V	564	21.1%
REGION VI	322	12.0%
TOTAL	2,675	100.0%

REGIONAL DISTRIBUTION - 1990 REGISTRATIONS

	REGION I		REGION II		REGION III		REGION IV		REGION V		REGION VI		TOTALS		TOTAL AGE GROUP	% OF AGE GROUP
	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
0 - 6	8	2	3	4	5	9	7	8	9	15	9	6	41	44	85	3.2
7 - 13	7	4	2	-	5	-	1	3	6	1	3	5	24	13	37	1.4
14 - 22	-	3	1	1	5	1	1	1	2	4	2	4	11	14	25	0.9
23 - 44	7	18	12	9	17	8	24	13	13	13	11	19	84	80	164	6.1
45 - 64	22	20	11	11	20	19	27	35	24	26	21	20	125	131	256	9.6
65 - 74	27	35	15	24	28	45	29	52	29	55	26	29	154	240	394	14.7
75 - 84	45	67	25	85	54	136	53	127	72	141	22	61	271	617	888	33.2
85 & OVER	21	89	20	68	29	119	43	140	32	103	18	54	163	573	736	27.5
UNKNOWN	2	4	4	5	5	13	16	10	6	13	4	8	37	53	90	3.4
TOTAL	139	242	93	207	168	350	201	389	193	371	116	206	910	1,765	2,675	100.0
REGIONAL TOTAL	381		300		518		590		564		322		2,675			
% OF 1990 REGISTRATIONS	14.2		11.2		19.4		22.1		21.1		12.0		100.0			

TOTAL REGISTER

AGE	MALE	FEMALE	TOTAL	%
0 - 6	202	195	397	1.3
7 - 13	301	273	574	1.9
14 - 22	386	319	705	2.3
23 - 44	1,879	1,593	3,472	11.4
45 - 64	1,744	1,675	3,419	11.3
65 - 74	1,643	2,251	3,894	12.8
75 - 84	2,227	4,536	6,763	22.2
85 & over	2,462	7,526	9,988	32.9
Unknown	390	803	1,193	3.9
TOTAL	11,234	19,171	30,405	100.0

TOTAL REGISTER

	TOTAL	M	F
1990	14	6	8
1989	45	25	20
1988	49	15	34
1987	55	28	27
1986	66	31	35
1985	77	45	32
1984	91	52	39
1983	91	44	47
1982	82	48	34
1981	81	46	35
1980	86	39	47
1979	79	38	41
1978	77	36	41
1977	78	50	28
1976	71	36	35
1975	70	39	31
1974	75	41	34
1973	69	32	37
1972	78	42	36
1971	82	55	27
1970	91	51	40
1969	87	47	40
1968	82	43	39
1967	112	69	43
1966	100	56	44
1965	128	61	67
1964	157	68	89
1963	156	90	66
1962	145	83	62
1961	132	64	68
1960	165	98	67
1959	132	69	63
1958	169	93	76
1957	143	78	65
1956	157	89	68
1955	172	103	69
1954	172	94	78
1953	194	94	100
1952	178	97	81
1951	194	97	97
1950	183	104	79
1949	159	87	72
1948	171	92	79
1947	180	102	78
1946	173	91	82
1945	145	82	63
1944	132	77	55
1943	165	88	77
1942	155	84	71
1941	117	72	45
1940	135	72	63
1939	114	59	55
1938	128	72	56
1937	133	61	72
1936	150	89	61
1935	174	93	81
1934	164	101	63
1933	164	73	91
1932	184	79	105
1931	176	80	96
1930	199	101	98
1929	238	130	108
1928	244	116	128
1927	243	104	139
1926	259	111	148
1925	289	143	146
1924	317	149	168
1923	335	142	193
1922	346	153	193
1921	415	166	249
1920	399	168	231
1919	394	164	230
1918	450	194	256
1917	494	196	298
1916	455	168	287
1915	520	203	317
1914	549	205	344
1913	591	218	373
1912	602	231	371
1911	682	232	450
1910	724	216	508
1909	721	230	491
1908	765	220	545
1907	793	228	565
1906	816	244	572
1905	815	227	588
1904	867	234	633
1903	867	223	644
1902	910	245	665
1901	777	202	575
1900	837	196	641
1899	665	160	505
1898	684	168	516
1897	638	147	491
1896	665	162	503
1895	519	118	401
1894	424	108	316
1893	355	80	275
1892	320	68	252
1891	265	60	205
1890	211	37	174
1889	73	19	54
1888	60	7	53
1887	1	1	-
1886	12	-	12
1885	7	-	7
1884	16	-	16
UNKNOWN	1,193	390	803
TOTAL	30,405	11,234	19,171

1990 REGISTRATIONS

AGE	MALE	FEMALE	TOTAL	%
0 - 6	41	44	85	3.2
7 - 13	24	13	37	1.4
14 - 22	11	14	25	0.9
23 - 44	84	80	164	6.1
45 - 64	125	131	256	9.6
65 - 74	154	240	394	14.7
75 - 84	271	617	888	33.2
85 & OVER	163	573	736	27.5
UNKNOWN	37	53	90	3.4
TOTAL	910	1,765	2,675	100.0

1990 REGISTRATIONS

	TOTAL	M	F		TOTAL	M	F		TOTAL	M	F
1990	15	7	8								
1989	30	15	15	1951	9	5	4	1913	84	25	59
1988	14	2	12	1950	8	5	3	1912	91	33	58
1987	6	3	3	1949	2	1	1	1911	91	26	65
1986	5	4	1	1948	7	3	4	1910	98	31	67
1985	6	4	2	1947	7	2	5	1909	84	23	61
1984	9	6	3	1946	8	3	5	1908	105	34	71
1983	8	7	1	1945	4	3	1	1907	103	28	75
1982	8	4	4	1944	10	6	4	1906	98	35	63
1981	5	4	1	1943	6	4	2	1905	81	19	62
1980	2	1	1	1942	14	7	7	1904	93	20	73
1979	6	3	3	1941	9	8	1	1903	84	15	69
1978	5	3	2	1940	11	4	7	1902	80	18	62
1977	3	2	1	1939	6	4	2	1901	59	12	47
1976	4	-	4	1938	10	4	6	1900	83	22	61
1975	2	1	1	1937	12	5	7	1899	54	17	37
1974	3	1	2	1936	8	4	4	1898	52	8	44
1973	6	3	3	1935	13	6	7	1897	37	11	26
1972	1	1	-	1934	11	7	4	1896	30	5	25
1971	2	1	1	1933	11	5	6	1895	21	6	15
1970	1	1	-	1932	13	9	4	1894	19	3	16
1969	4	3	1	1931	15	7	8	1893	14	3	11
1968	2	-	2	1930	13	6	7	1892	9	1	8
1967	4	2	2	1929	15	10	5	1891	8	1	7
1966	4	2	2	1928	21	6	15	1890	5	-	5
1965	6	3	3	1927	24	8	16	1889	3	1	2
1964	9	2	7	1926	30	12	18	1888	3	1	2
1963	11	6	5	1925	22	8	14	1887	-	-	-
1962	11	6	5	1924	21	12	9	1886	-	-	-
1961	3	2	1	1923	20	6	14	1885	1	-	1
1960	11	5	6	1922	33	12	21				
1959	7	4	3	1921	33	10	23	UNKNOWN	90	37	53
1958	11	6	5	1920	44	20	24				
1957	4	3	1	1919	39	15	24				
1956	7	4	3	1918	56	23	33				
1955	10	7	3	1917	76	30	46				
1954	10	6	4	1916	50	18	32				
1953	9	4	5	1915	63	20	43				
1952	6	3	3	1914	71	16	55	TOTAL	2,675	910	1,765

DIAGNOSES - TOTAL REGISTER

		MALE	FEMALE	TOTAL	%
1.	Macular Degeneration	2,867	6,854	9,721	32.0
2.	Diabetic Retinopathy	953	1,727	2,680	8.8
3.	Cataract and Retinal Affection	434	1,402	1,836	6.0
4.	Cataract	587	1,176	1,763	5.8
5.	Glaucoma	739	960	1,699	5.6
6.	Optic Nerve Atrophy	626	538	1,164	3.8
7.	Other Affections of the Optic Pathway	505	482	987	3.3
8.	Retinitis Pigmentosa	491	450	941	3.1
9.	Retinal Affection w/Other Combination	270	602	872	2.9
10.	Multiple Congenital Malformations	348	366	714	2.3
11.	Glaucoma and Cataract	206	478	684	2.3
12.	Myopia	267	412	679	2.2
13.	Glaucoma and Retinal Affection	191	391	582	1.9
14.	Retrolental Fibroplasia	263	270	533	1.8
15.	Optic Neuritis	237	233	470	1.5
16.	Other Affections of the Retina	211	226	437	1.4
17.	Cataract in any Other Combination	121	294	415	1.4
18.	Glaucoma, Cataract and Retinal Affect	106	242	348	1.1
19.	nystagmus	142	160	302	1.0
20.	Albinism	159	139	298	1.0
	All Other Multiple Affections	173	150	323	1.1
	All Other Diagnoses	1,061	1,308	2,369	7.8
	Unknown Diagnoses	277	311	588	1.9
	Total	11,234	19,171	30,405	100.0

DIAGNOSES - TOTAL REGISTER

	Male	Female	Total
RETINA			
Macular Degeneration	2,867	6,854	9,721
Diabetic Retinopathy	953	1,727	2,680
Retinitis Pigmentosa	491	450	941
Retrolental Fibroplasia	263	270	533
Detached Retina	154	103	257
Other Retinal Degeneration	96	179	275
Other Affections of the Retina	211	226	437
EYEBALL IN GENERAL			
Glaucoma	739	960	1,699
Myopia	267	412	679
Albinism	159	139	298
Microphthalmos	16	30	46
Hydrophthalmos	45	46	91
Multiple Congenital Malformations	348	366	714
Atrophic Globe	38	24	62
Anophthalmos	19	11	30
Other Affections of the Eyeball	48	30	78
OPTIC NERVE			
Optic Nerve Atrophy	626	538	1,164
Nystagmus	142	160	302
Optic Neuritis	237	233	470
Other Affections of Optic Pathway	505	482	987
Other Affections of Optic Nerve	84	88	172
LENS			
Cataract	587	1,176	1,763
Dislocated Lens	18	19	37
Other Affections of the Lens	3	1	4
VITREOUS			
Vitreous Hemorrhage	24	20	44
Other Affections of the Vitreous	13	13	26

	Male	Female	Total
CORNEA			
Keritits	48	76	124
Corneal Dystrophy	50	130	180
Keratoconus	31	32	63
Other Affections of the Cornea	102	123	225
Uveal Tract			
Chorioretinitis	93	140	233
Uveitis, Iritis, Choroiditis	47	89	136
Other Affections of the Iris/Choroid	76	77	153
AMBLYOPIA	56	77	133
MULTIPLE AFFECTIONS			
Glaucoma and Cataract	206	478	684
Glaucoma and Retinal Affection	191	391	582
Cataract and Retinal Affection	434	1,402	1,836
Glaucoma, Cataract & Retinal Aff.	106	242	348
Glaucoma in any Other Combination	73	88	161
Cataract in any Other Combination	121	294	415
Retinal Affections in any Other Comb.	270	602	872
All Other Multiple Affections	100	62	162
SITE & TYPE OF AFFECTIONS UNKNOWN	277	311	588
TOTAL	11,234	19,171	30,405

1990 REGISTRATIONS - DIAGNOSES BY AGE GROUPS

	0-6		7-13		14-22		23-44		45-64		65-74		75+		Unk.		TOTAL			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	TOTAL	%
Macular Degeneration				1			3	8	16	17	54	81	230	696	9	22	312	825	1,137	42.5
Diabetic Retinopathy						1	16	14	38	42	29	58	10	42	5	7	98	164	262	9.8
Cataract w/Retinal Affect.							3		3	4	3	17	34	96	3	4	46	121	167	6.2
Glaucoma							3		15	5	16	14	33	64	2	4	69	87	156	5.8
Ret. Aff. w/other comb.							2	2	4	11	14	19	17	44	2	4	39	80	119	4.4
Cataract	1							1	3	6	6	12	21	58	1	1	32	78	110	4.1
Glau & Ret. Aff.w/o other											1	5	24	47	2		27	52	79	2.9
Other Aff. Optic Pathway	8	12	5	4	1	3	3	3	4	4	2	1	5	15	1	1	29	43	72	2.7
Optic Nerve Atrophy	5	4	4	1	1	2	5	7	10	4	5	6	3	4	2		35	28	63	2.4
Optic Neuritis	1					1	7	9	6	11	4	4	1	9	2	1	21	35	56	2.1
Glau, Cat w/o other Affect							2		1	3	4	3	10	29	1	1	18	36	54	2.0
Other Aff. of the Retina	1	1	1		1		7	1	1	2	2	2	7	24		1	20	31	51	1.9
Mult. Cong. Ocular Malform	6	9	7	3	3	3	4	8					1			1	21	24	45	1.7
Other Retinopathy	2				1			1	1	1	2	4	10	15	1		17	21	38	1.4
Retinitis Pigmentosa	1	1	2			1	7	4	1	5	2	3	2			2	15	16	31	1.2
Glau, Cat w/Retinal Aff.									1	2	2		6	15	1		10	17	27	1.0
Myopia	2	1			1		5	3	3	3	1	2	1	2			13	11	24	0.9
Cataract w/other comb.									2	2	2	2	3	7	1	2	8	13	21	0.8
Corneal Dystrophy				1				1	2			1	4	11		1	6	15	21	0.8
Other Affect of Eyeball	3	2	1		1	1	4	6		1			1		1		11	10	21	0.8
Retrolental Fibroplasia	6	8		1			2										8	9	17	0.7
Other Aff. Cornea/Sclera		1	2			1	1	4	1	1	1	1	2	1			7	9	16	0.6
Detached Retina	1	1		1	1			1	5	1				3	1		8	7	15	0.6
Other Aff. Optic Nerve		2	1	1			2			1	1	1					4	5	9	0.3
Nystagmus	1	1	1				1	2		1		1					3	5	8	0.3
Other Aff. Iris/Choroid	1						1	1	1				1	1	1		5	2	7	0.3
Chorioretinitis								1	1				2	2			3	3	6	0.2
All Other Diagnoses						1	4	2	3	1	3	1	5	5			15	10	25	0.9
Unknown Diagnoses	2	1			1		2	1	3	3		2	1		1	1	10	8	18	0.7
Total	41	44	24	13	11	14	84	80	125	131	154	240	434	1,190	37	53	910	1,765	2,675	100.0

DIAGNOSES - 1990 REGISTRATIONS

	Male	Female	Total
RETINA			
Macular Degeneration	312	825	1,237
Diabetic Retinopathy	98	164	262
Retinitis Pigmentosa	15	16	31
Retrolental Fibroplasia	8	9	17
Detached Retina	8	7	15
Other Retinal Degeneration	12	28	40
Other Affections of the Retina	25	24	49
EYEBALL IN GENERAL			
Glaucoma	69	87	156
Myopia	13	11	24
Albinism	5	4	9
Microphthalmos	-	1	1
Hydrophthalmos	1	3	4
Multiple Congenital Malformations	21	24	45
Atrophic Globe	1	1	2
Anophthalmos	-	1	1
Other Affections of the Eyeball	4	-	4
OPTIC NERVE			
Optic Nerve Atrophy	35	28	63
Nystagmus	3	5	8
Optic Neuritis	21	35	56
Other Affections of Optic Pathway	29	43	72
Other Affections of Optic Nerve	4	5	9
LENS			
Cataract	32	78	110
Dislocated Lens	-	-	-
Other Affections of the Lens	-	-	-
VITREOUS			
Vitreous Hemorrhage	1	-	1
Other Affections of the Vitreous	-	1	1

	Male	Female	Total
CORNEA			
Keritits	2	2	4
Corneal Dystrophy	6	15	21
Keratoconus	1	2	3
Other Affections of the Cornea	4	5	9
Uveal Tract			
Chorioretinitis	3	3	6
Uveitis, Iritis, Choroiditis	1	2	3
Other Affections of the Iris/Choroid	4	-	4
AMBLYOPIA	3	2	5
MULTIPLE AFFECTIONS			
Glaucoma and Cataract	18	36	54
Glaucoma and Retinal Affection	27	52	79
Cataract and Retinal Affection	46	121	167
Glaucoma, Cataract & Retinal Aff.	10	17	27
Glaucoma in any Other Combination	8	6	14
Cataract in any Other Combination	8	13	21
Retinal Affections in any Other Combination	39	80	119
All Other Multiple Affections	3	1	4
SITE & TYPE OF AFFECTIONS UNKNOWN	10	8	18
TOTAL	910	1,765	2,675

CLASSIFICATION BY ETIOLOGY
1990 REGISTRATIONS

Diseases or Disorders not Elsewhere Classified	1,642	61.4%
Etiology Indefinite or Not Reported	798	29.8%
Prenatal Influence Not Elsewhere Classified	154	5.8%
Injuries/Poisonings	46	1.7%
Infectious Diseases	21	0.8%
Neoplasms	14	0.5%
Total	2,675	100.0%

CLASSIFICATION BY ETIOLOGY

1990 REGISTRATIONS

DISEASES OR DISORDERS NOT ELSEWHERE CLASSIFIED

	0 - 6	7 - 13	14 - 22	23 - 44	45 - 64	65 - 74	75 & Over	Unknown	TOTALS
NUTRITIONAL DEFICIENCY					1		1		2
DIABETES MELLITUS			1	34	94	106	58	14	307
SENILE DEGEN., REPORTED					10	80	540	17	647
SENILE DEGEN., ASSUMED					17	61	499	2	579
CEREBROVASCULAR CONDITION					3	3	13		19
OTHER DISEASE OF THE CIRCULATORY SYSTEM					5	13	27	2	47
MULTIPLE SCLEROSIS				9	7	2			18
OTHER DISEASE OF THE CENTRAL NERVOUS SYSTEM	5	4	2	1	1	1			14
OTHER METABOLIC OR GROWTH DISORDER						1			1
NONINFECTIOUS INFLAMMATORY DISEASE		1		1		2			4
OTHER SPECIFIED DISEASE		1			1	1		1	4
TOTAL	5	6	3	45	139	270	1,138	36	1,642

CLASSIFICATION BY ETIOLOGY

1990 REGISTRATIONS

	0 - 6	7 - 13	14 - 22	23 - 44	45 - 64	65 - 74	75 & Over	Unknown	TOTALS
Unknown to Science				6	22	31	109	7	175
Senile Degeneration & Other Etiology Except Diabetes Mellitus					15	45	279	7	346
Senile Degeneration & Diabetes Mellitus w/wo Other Etiology					16	27	37	4	84
All Other Multiple Etiologies	2			5	2			1	10
Etiology not Reported or Established	24	5	4	32	32	10	52	24	183
Total	26	5	4	43	87	113	477	43	798

Prenatal Influence Not Elsewhere Classified

Hereditary Origin, Occurrence in Genetic Family Reported	2	2	1	3	1			1	10
Hereditary Origin, Occurrence in Genetic Family Not Reported	20	12	6	44	10	4	5	4	105
Congenital Origin Not Elsewhere Classified	20	8	4	5	2				39
Total	42	22	11	52	13	4	5	5	154

CLASSIFICATION BY ETIOLOGY

INJURIES/POISONINGS

1990 REGISTRATIONS

	0 - 6	7 - 13	14 - 22	23 - 44	45 - 64	65 - 74	75 & Over	Unknown	TOTALS
RECREATIONAL - OXYGEN			1						1
TRANSPORTATION - UNSPEC.				1					1
BIRTH PROCESS - OXYGEN	2			1					3
SURGERY/MEDICAL - "	2							1	3
" - UNSPEC.								1	1
VIOLENCE - FIREARM				1					1
OTHER ACTIV. - OXYGEN				1					1
" - TOXIC AGENT				1	1				2
" - NONTOXIC "				1					1
UNSPECIFIED - CHEM BURN						1			1
" - FIREARM			1		1				2
" - BLOW/FALL	1	1							2
" - METH ALCHL					1				1
" - OXYGEN	2	2							4
" - TOXIC AGENT					1				1
" NONTOXIC "				1					1
UNSPEC. INJURY/POISON	2		1	6	5	2	1	3	20
TOTAL	9	3	3	13	9	3	1	5	46

CLASSIFICATION BY ETIOLOGY

1990 REGISTRATIONS

Infectious Diseases

	0 - 6	7 - 13	14 - 22	23 - 44	45 - 64	65 - 74	75 & Over	Unknown	TOTAL
Herpes Simplex		1							1
Rubella			2						2
Toxoplasmosis, Prenatal				1		1	1		3
Other Infect. Dis. "	1								1
Other Infect. Disease	1			5	2	1	1	1	11
Unident. Infect Disease	1			1	1				3
Total	3	1	2	7	3	2	2	1	21

Neoplasms

Neoplasm of pituitary gland or stalk			1	2		2	1		6
Other intracranial neoplasm				1	3				4
Other neoplasm			1	1	2				4
Total			2	4	5	2	1		14

VISUAL ACUITY - 1990 REGISTRATIONS

	0-6		7-13		14-22		23-44		45-64		65-74		75-84		85+		Unk.			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	TOTAL	%
Absolute Blindness	8	9	2	1	4	3	4	7	6	4	1	3	2	4	1	7	1	3	70	2.6
Light Perception	6	10	2	3		2	4		2	5	3	7	2	3	3	11		5	68	2.5
Light Projection			1												1	2			4	0.2
Less than 5/200	1		3	1			15	9	13	22	20	28	48	81	32	123	8	2	406	15.2
5/200 - 9/200							3		8	4	5	7	12	34	11	44	2	1	131	4.9
10/200 - 19/200	19	18	10	3	6	3	21	28	33	36	50	69	78	203	53	161	7	15	813	30.4
20/200	7	7	5	4	1	2	23	26	35	44	57	115	109	260	56	211	15	24	1,001	37.4
Restricted Fields			1	1		4	14	10	28	16	18	11	20	32	6	14	3	3	181	6.8
Unknown																	1		1	
	41	44	24	13	11	14	84	80	125	131	154	240	271	617	163	573	37	53	2,675	100.0
Total	85		37		25		164		256		394		888		736		90		2,675	100.0

RACE/ETHNIC DISTRIBUTION - 1990 REGISTRATIONS

Age	White	Black	Hispanic	Asian/ Pac.Isl.	Unknown	Age Group Total	Reported Minority % within Age Group
0 - 6	29	4	3	-	49	85	19.4
7 - 13	11	3	2	-	21	37	31.3
14 - 22	10	-	1	1	13	25	16.7
23 - 44	71	11	12	4	66	164	27.6
45 - 64	111	25	14	4	102	256	27.9
65 - 74	196	19	6	2	171	394	12.1
75 - 84	473	6	3	3	403	888	2.5
85 & over	381	6	3	1	345	736	2.6
Unknown	15	1	-	2	72	90	16.7
Total	1,297	75	44	17	1,242	2,675	9.5
Percent	48.5	2.8	1.7	0.6	46.4	100.0	

Region	White	Black	Hispanic	Asian/ Pac.Isl.	Unknown	Regional Total	Reported Regional Minority Percentage
I	203	7	12	2	157	381	9.4
II	156	1	8	1	134	300	6.0
III	235	2	6	4	271	518	4.9
IV	276	8	1	1	304	590	3.5
V	287	7	7	2	261	564	5.3
VI	140	50	10	7	115	322	32.4
Total	1,297	75	44	17	1,242	2,675	9.5
Percent	48.5	2.8	1.7	0.6	46.4	100.0	

1990 REGISTER REMOVALS

Age	Male	Female	Total	Percent
0 - 6	8	3	11	1.1
7 - 13	9	6	15	1.5
14 - 22	8	5	13	1.3
23 - 44	19	24	43	4.2
45 - 64	41	37	78	7.6
65 - 74	45	48	93	9.1
75 - 84	45	103	148	14.5
85 & Over	130	428	558	54.7
Unknown	26	35	61	6.0
Total	331	689	1,020	100.0
Removal Cause				
Death	188	410	598	58.6
Out of State	27	36	63	6.2
Not Blind	18	12	30	2.9
Unlocated	98	231	329	32.3
Total	331	689	1,020	100.0